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Law Office of Ross J. Christie, LLC



Tol	Examiner Michael Koczo	, Jr. From:	Ross J. Christie	
Faori	(703) 748-4557	Pages	6	
Phones	(703) 308-2630	Dater	10/12/2004	
Rei	Proposed claim amendments for U.S. Pat. CC:		Ms. Karen Meier	
	Appl. Serial No. 09/848,701		Shimokaji & Associates, P.C.	
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Dear E	kaminer Koczo, Jr.:			***
Pursuar forward matter.	nt to your request durin ing to your attention a c	g our telephonic intervi copy of the proposed cla	ew in the above-re aim amendments fo	ferenced matter, I am r the above-referenced
Thank y	ou again for your willingne	ess to discuss this matter	and consider our pro	posals.
Regards	s,			

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Joseph Zelina : Confirmation No.: 7935

Serial No. 09/848,701 : Group Art Unit: 3746

Filed: May 2, 2001 : Examiner: Michael Koczo

For: Partial Premix Dual Circuit Fuel :

Injector

Listing of Claims:

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1-14. (cancelled)

15. (currently amended) A gas turbine engine fuel injection and combustor system, comprising:

an outer casing extending from an upstream end to a downstream end, an internal space of the downstream end defining a combustion chamber;

an annular dome connected to an internal, upstream end of the outer casing;

a radial flow air swirler mounted to <u>a radial air swirling housing</u> an internal surface of the annular dome and to an external surface of a fuel injector body, said swirler providing swirled air to the combustion chamber, said radial air swirling housing connected to said annular dome; and

a fuel injector body mounted to an internal surface of the radial flew air swirler swirling housing, said fuel injector body comprising a main circuit fuel nozzle disposed about an outer periphery of said fuel injector body and concentrically disposed about a plurality of axially oriented air swirlers, said air swirlers located within said fuel injector body and concentrically disposed about a pilot circuit fuel nozzle and between said main circuit fuel nozzle and said pilot

circuit fuel nozzle, said main circuit fuel nozzle in fluid communication with a main circuit burner fuel through a passageway formed within said fuel injector body, said axially oriented air swirlers formed parallel to a combustion centerline formed within said fuel injector body, said pilot circuit fuel nozzle in fluid communication with a pilot circuit burner fuel through said combustion centerline a plurality of axially oriented air swirlers, an axially located pilot circuit fuel nozzle, and a plurality of radially oriented main circuit fuel nozzles; and

wherein the annular dome includes a plurality of circumferentially disposed dome cooling nozzles; and

wherein said fuel injector body incorporates both the pilot circuit and the main circuit fuel nozzles.

16. (cancelled)

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17. (previously presented) The gas turbine engine fuel injection and combustor system of claim 15, wherein said fuel injector body for the pilot and main circuit fuel nozzles is cylindrical.

18. (cancelled)

- 19. (previously presented) The gas turbine engine fuel injection and combustor system of claim 15, wherein said pilot circuit fuel nozzle is encircled by the plurality of axially oriented air swirlers.
- 20. (currently amended) The gas turbine engine fuel injection and combustor system of claim 15, wherein said main circuit fuel nozzles each discharge fuel at an a compound angle with respect to a radially extending axial axis of each nozzle into a radial swirter passage.

21. (cancelled)

- 22. (previously presented) The gas turbine engine fuel injection and combustor system of claim 15, further comprising a can type combustor.
- 23. (previously presented) The gas turbine engine fuel injection and combustor system of claim 15, further comprising an annular type combustor.
- 24. (previously presented) The gas turbine engine fuel injection and combustor system of claim 15, wherein the system is capable of utilizing aviation fuel.
- 25. (currently amended) A gas turbine engine fuel injection and combustor system, comprising:

an outer casing extending from an upstream end to a downstream end, an internal space of the downstream end defining a combustion chamber;

an annular dome connected to an internal, upstream end of the outer casing;

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a radial flow air swirler mounted to a radial air swirling housing an internal surface of the annular dome and to an external surface of a fuel injector body, said swirler providing swirled air to the combustion chamber, said radial air swirling housing connected to said annular dome; and

a fuel injector body mounted to an internal surface of the radial flow air swirler swirling housing, said fuel injector body comprising a main circuit fuel nozzle disposed about an outer periphery of said fuel injector body and concentrically disposed about a plurality of axially oriented air swirlers, said air swirlers located within said fuel injector body and concentrically disposed about a pilot circuit fuel nozzle and between said main circuit fuel nozzle and said pilot circuit fuel nozzle, said main circuit fuel nozzle in fluid communication with a main circuit burner fuel through a passageway formed within said fuel injector body, said axially oriented air swirlers formed parallel to a combustion centerline formed within said fuel injector body, and said pilot circuit fuel nozzle in fluid communication with a pilot circuit burner fuel through said combustion centerline

a plurality of axially oriented air swirlers, an axially located pilot circuit fuel nezzle; and a plurality of radially oriented main circuit fuel nezzles;

26. (cancelled)

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27. (previously presented) The gas turbine engine fuel injection and combustor system of claim 25, wherein said fuel injector body for the pilot and main circuit fuel nozzles is cylindrical.

28. (cancelled)

- 29. (previously presented) The gas turbine engine fuel injection and combustor system of claim 25, wherein said pilot circuit fuel nozzle is encircled by the plurality of axially oriented air swirlers.
- 30. (currently amended) The gas turbine engine fuel injection and combustor system of claim 25, wherein said main circuit fuel nozzles each discharge fuel at an a compound angle with respect to a radially extending axial axis of each nozzle into a radial swirler passage.
- 31. (previously presented) The gas turbine engine fuel injection and combustor system of claim 25, further comprising a can type combustor.
- 32. (previously presented) The gas turbine engine fuel injection and combustor system of claim 25, further comprising an annular type combustor.
- 33. (previously presented) The gas turbine engine fuel injection and combustor system of claim 25, wherein the system is capable of utilizing aviation fuel.

34-42. (cancelled)